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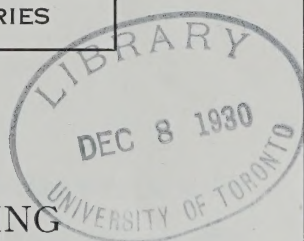
PREPARING POULTRY FOR MARKET



The finished product. Grade A "milk-fed" packed for shipping.

DOMINION OF CANADA
DEPARTMENT OF AGRICULTURE
PAMPHLET NO. 125.—NEW SERIES

CRATE FEEDING
KILLING AND DRESSING
GOVERNMENT GRADES



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R. A. WHITMAN
Editor

Preparing Poultry for Market

Putting the finishing touches on a product before offering it for sale yields the greatest proportionate return of any labour done on the average farm. In no case is this more true than with the proper feeding and finishing of poultry. By the comparatively simple process of crate feeding, using suitable rations, the grade of the farm flock range fed bird can be raised from "Selected B" into the "Milkfed B" or "Milkfed A" class. In the process not only is the grade of the product improved but added value through increased weight is secured.

The acceptance by the leading wholesalers of the official "government grades" as the basis for trading, and the establishment of substantial differentials in price between classes and grades means recognition of the fact that the farm is the proper place at which to feed and properly finish poultry. It is the last pound that gives the finish, and it is the cheapest weight on the whole frame to produce. Market poultry, whether sold alive or dressed, should always be specially prepared, and for this purpose the feeding crate is essential.

The frontispiece shows the main objective of crate feeding, "Milkfed A" birds finely finished, graded and packed ready for shipment.

THE FEEDING CRATE

The type of crate found in general practice well suited to the fattening of poultry is easy to make and an ample supply of suitable materials is usually available on the average farm. The accompanying illustration shows the general appearance of a suitable crate.

The feeding crate specifications for building this type of crate are:—

Length—6 feet, inside measurement.

Breadth—16 inches, inside measurement.

Depth—20 inches, inside measurement.

Divide into three compartments by the use of two tight wooden partitions and ends.

Frame stock—2 inch by $\frac{7}{8}$ -inch.

Slat stock—Bottom $\frac{7}{8}$ -inch by $\frac{5}{8}$ -inch.

Back, top and front $\frac{7}{8}$ -inch by $\frac{3}{8}$ -inch.

Slat spacing—Front, vertically, 2 inches apart.

Bottom, lengthwise, $1\frac{1}{2}$ inches apart.

Back, lengthwise, 2 inches apart.

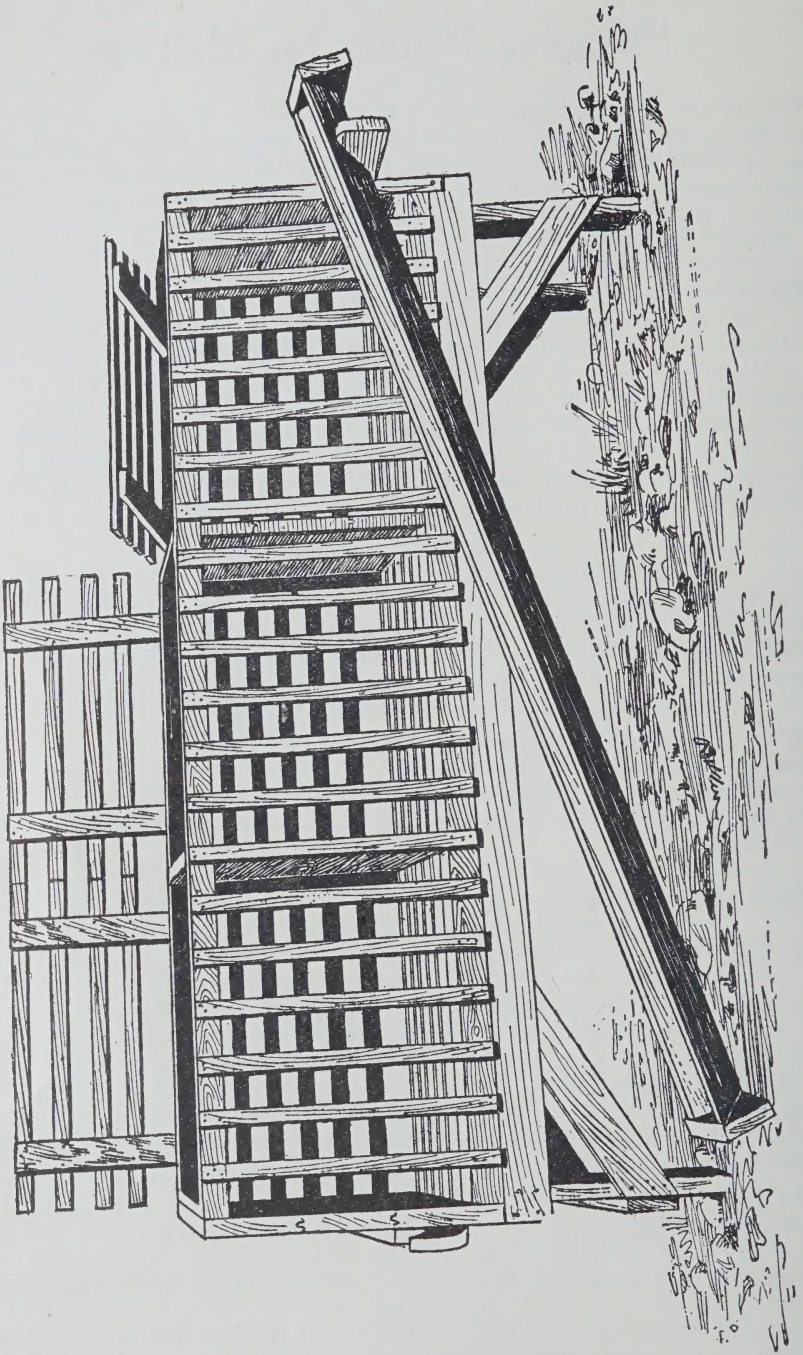
Top, lengthwise, 2 inches apart.

Covers—Cut top slats over partitions; nail 1 inch strip 2 inches wide on under side and hinge to back.

Feeding Trough—"V" shaped, of $2\frac{1}{2}$ -inch stock placed in front of crate with bottom of trough 4 inches above floor of crate, and upper inside edge 2 inches from the crate.

The crates may be placed on stands 16 inches from the ground. Drop-pings are received on sand or some other absorbent material. A light "V" trough, $2\frac{1}{2}$ inches inside, is placed in front of each crate. The bottom of the trough should be 4 inches above the floor, with the upper inside edge 2 inches from the crate.

Should it be found desirable to place crates in tiers one above the other, doors would have to be placed in the front instead of on the top, and a pan or boards will have to be placed under all but the bottom tiers to catch the droppings.



THE FEEDING CRATE

Crates can be made from old packing boxes, or from any conveniently available odds and ends of lumber, but a crate made from proper materials will be found to give the greatest satisfaction.

This type of crate is designed to hold twelve birds for feeding, four in each of the three compartments.

LOCATION OF FEEDING CRATES

For best results in crate feeding the birds should be in a dry cool, quiet well ventilated place such as is afforded by a convenient shed, barn or stable. They should have enough light to see to eat. The objective is to keep the birds quiet and contented. Every care should be taken to avoid having them startled and upset by barking dogs, too frequent visits by strangers, or other things which will disturb them.

SELECTING BIRDS FOR FEEDING

Medium-sized birds belonging to the general purpose breeds will be found best suited to crate feeding. The stronger and more vigorous the bird the better the results. The Leghorn and other lightweight breeds make good broilers but poor roasters, being too nervous to take to crate feeding; while the Barred Plymouth Rocks and general purpose breeds on the other hand make ideal market birds.

Young cockerels of the general purpose varieties give the best results when put into crates at around five pounds in weight, or around six months old. To make the best gains in crate feeding they should, above all, be healthy and free from vermin, well grown, and comparatively well fleshed—just when they have the frame and are in the condition to make the best use of the fattening ration. In the “Rocks” and similar breed a weight of from $4\frac{1}{2}$ to 5 pounds as the bird is weighed off the range is desirable. Cockerels that have been kept separated from pullets, other conditions being equal, will make the best gains in crate feeding, and will turn out a higher quality of finished poultry.

Hens that have passed their second laying season when well fleshed make excellent eating. A week or ten days in the fattening crate materially improves their quality, and will improve the quality of all poultry suitable for marketing.

Before birds are placed in the crate for feeding they should be dusted with dry sulphur, or some suitable preparation, to ensure their being thoroughly free from lice, and if the feeding crate has been used before it should be thoroughly cleaned and disinfected.

CRATE FEEDING

The beginning of the feeding period is most important. If the birds placed in the feeding crate have feed in their crops they should miss a meal and feed should be given sparingly for several days. Immediately on being placed in feeding crates birds should be given a purgative in the form of Epsom Salts in the first feed; the dosage being at the rate of one pound of Epsom Salts to one hundred birds. The Salts should be dissolved in water and the solution used for mixing the first feed.

Don't overfeed at first. Feeding the birds all they will eat the first day results in loss of appetite and weight. It is better to leave the birds without feed for the first twenty-four hours after entering the crates than to overfeed them. For the first few days the birds should be kept fairly hungry and never satisfied until they become used to their confined quarters. After that as much feed as they will take may be given two or three times a day. *After every feed, however, the troughs should be cleaned,* and a supply of grit should be available two or three times a week.

The feeder who gets best results is the one who can so gauge his feeding that the birds will clean up what is given them each meal—they should be fed only so much as they will clean up quickly; that is particularly important when three feeds a day are given. Each feed should leave the birds ready to come back for more—they should have not quite all they will take at any feed.

During the fall when the days are short two feeds a day may be sufficient, the morning feed being given as soon as it is light enough for the birds to see to eat and the evening meal about an hour before sundown.

HOW LONG TO FEED

Just for how long a period the crate feeding should be continued depends upon the birds and the market. Some birds will stand feeding longer than others. As a rule it takes at least three weeks to change the texture of the flesh. There may be birds, however, that will not stand more than ten days. These should be taken out just as soon as it is noticed that they are not eating well. Other birds will stand it for four or five weeks, and for a special market it may pay to feed this length of time. But as a rule the best gains are made during the first two or three weeks, and many prefer to feed no longer than this time.

HOW TO FEED

In crate feeding poultry one should bear in mind that the primary objective is to raise the quality of the bird into the "Milkfed" class grades, for which the highest prices are assured. What is meant by "Milkfed" is set out under "Poultry Grades" further on in the pamphlet, where a complete definition of classes and grades is given.

Some general facts which should be borne in mind are:—

Whole grains should never be fed.

All grain feed should be ground as finely as possible.

The feed should be kept palatable and for this purpose a little salt or molasses may be added to the ration.

A mixture of grains give best results as the birds will not tire of a variety as quickly as they will of one feed.

All feed should be given in a wet state, mixed to the consistency of thin porridge so that it can be poured from a pail or dipped out with a flat ladle or shingle.

The best materials for mixing the dry ingredients of the ration are, in order of relative value: Home-made buttermilk, commercial buttermilk powder or semi-solid buttermilk, sour milk or skim milk.

Better results are obtained when the milk used in mixing is sour, and when feed is mixed one meal ahead.

All ground feeds should have the coarse hulls removed.

WHAT TO FEED

The ration used in feeding must be palatable and one which will produce flesh without costing too much. Suitable rations which have been tested by the Poultry Division of the Experimental Farms Branch of the Dominion Department of Agriculture are:—

- 1—Equal parts of middlings, ground oats and barley.
- 2—Equal parts of middlings, ground oats and chopped raw potatoes.
- 3—Equal parts of middlings, ground oats and mashed potatoes.
- 4—Equal parts of middlings, ground oats and cornmeal.

- 5—Equal parts of shorts, ground hulless oats or groats, and ground barley.
- 6—Equal parts of low grade flour, ground barley and ground oats.
- 7—Equal parts of ground whole wheat, ground whole oats, ground whole barley.
- 8—Recommended by commercial feeders): two parts of finely ground oats (which must be fully mature weighing 34 pounds to the bushel or more), with one part of finely ground buckwheat).

NOTE.—All grain used should be finely ground, and all the coarser hulls removed.

Almost every farm has available a supply of grains suitable to the crate feeding of poultry. Farmers all over Canada are finding it increasingly worth while to market more of their coarse grains through the medium of poultry.

KILLING AND DRESSING

The final stage in properly preparing poultry for market, killing and dressing, is by no means the least important. Just a little carelessness, a little indifference to proper bleeding and plucking, and the premium of one grade or more in quality is lost. The discoloration which follows improper and insufficient bleeding, a tear in the flesh from careless plucking, dirt or soil on the finished carcass, all lower the quality of the bird by at least one grade.

For the present at least the practical place for preparing finished poultry for market is on the farm. Before attempting to kill and dress poultry for market, however, farmers will find it well worth while to get in touch with the nearest Representative of their Provincial or Federal Department of Agriculture, through whom a demonstration of the proper method of killing and dressing poultry may be arranged.

KILLING

The importance of properly dressing poultry can not be over-emphasized. The technical requirements as set out by federal regulations under the "Canadian Standards for Dressed Poultry" are as follows:—

The regulation method for killing and preparing poultry for market shall be as follows:—

They shall have been starved for sufficient length of time before being killed to empty crops and intestines, during which time they should have access to clean drinking water.

They shall:—be properly bled so that no blood remains in the extremities; be undrawn with the head and feet left on; be dry picked with all feathers removed, except that, if so desired, a few feathers may be left around the head and wing tips; be dry cooled, having feet clean and vent properly flushed, with all blood removed from the mouth and with the crop empty. Birds showing feed in the crop shall have the crop removed, preferably through the back of the neck, such crop removal shall lower the quality of the bird at least one grade. It is preferable that heads should be wrapped.

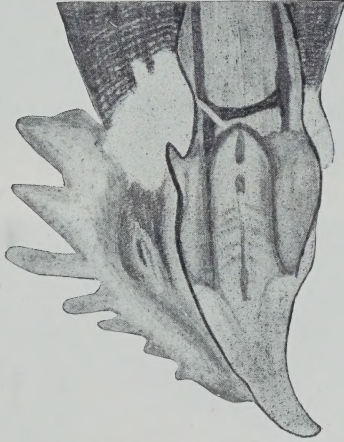
In instances where birds have been killed by any other method than by being properly bled through the mouth, or if the birds have been heavily scalded instead of being dry plucked, or if the birds have been drawn instead of being left undrawn, this fact or facts shall be stated on the end of the box where the grade and weights are shown.

HOW TO KILL

The best method to use in killing poultry is to bleed through the mouth and then to pierce the brain. The best method of bleeding is to cut the jugular vein within the mouth, as is clearly shown in the accompanying illustration, which should be closely studied. After this cut is made and as soon as the bird is bleeding freely, the brain should be pierced. This is done by placing the blade of the knife in the groove in the roof of the mouth, as shown in the illustration. Perfection in killing can only be obtained through practice. A knife specially suited to the purpose of killing poultry can be purchased, but if this is not available any sharp-pointed knife with not too large a blade will serve.

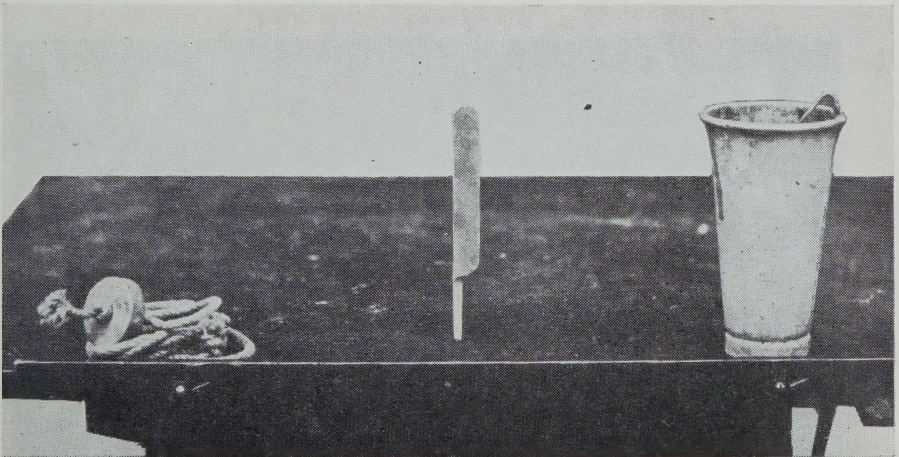
For convenience in killing and plucking the bird should be suspended at a comfortable working height. This may be done by the use of a short piece of heavy cord having a button of wood, leather or metal at one end, and looped to hang on a nail at the other. The button end of the cord swings around the legs of the bird and, passing between the legs and cord, holds tight.

The accompanying illustrations show the equipment useful in the proper killing and dressing of poultry, and how to proceed.



HOW TO KILL

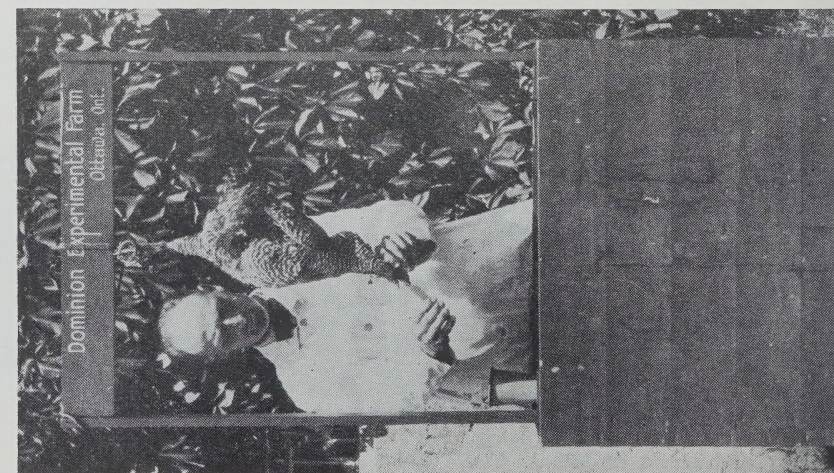
The white mark across the vein on the left side of the bird's neck is the place to cut to bleed. The white mark in the roof of the mouth indicates the place to enter the blade to pierce the brain.



Equipment for killing. (Cord with button; knife and blood cup.)

HOW TO DO IT

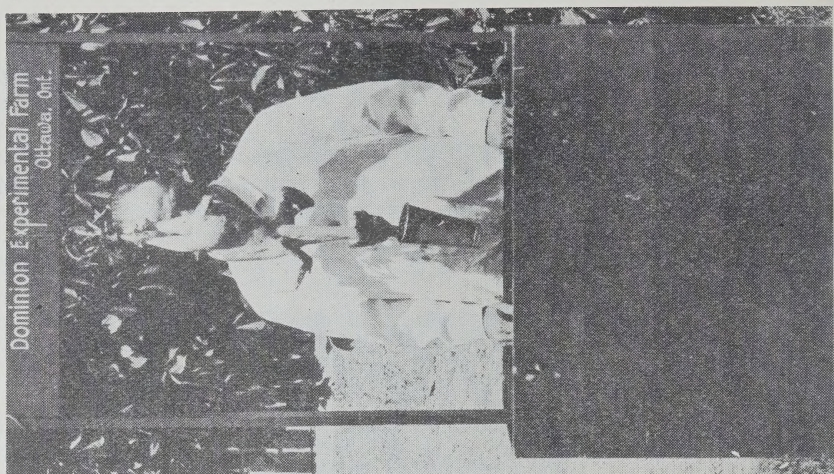
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1. Inserting the knife.



2. Starting to strip the feathers.



3. The job finished.

PLUCKING

For use on the farm the most practical method of dressing poultry is the dry pluck. It is quick, easy and when properly done leaves the bird attractive in appearance. Experienced poultry pluckers can strip the feathers off a bird in from forty to ninety seconds, and a little practice will enable the average individual to remove all the feathers from a bird in from a minute to a minute and a half.

In dry plucking experts follow a well outlined procedure. With the left hand steadying the bird by pinioning the wings to the back, the right hand in three motions strips the feathers from the wings and tail; the body feathers are next stripped, starting with the breast from the hips downward, then the back, neck and wings, and finally the leg feathers.

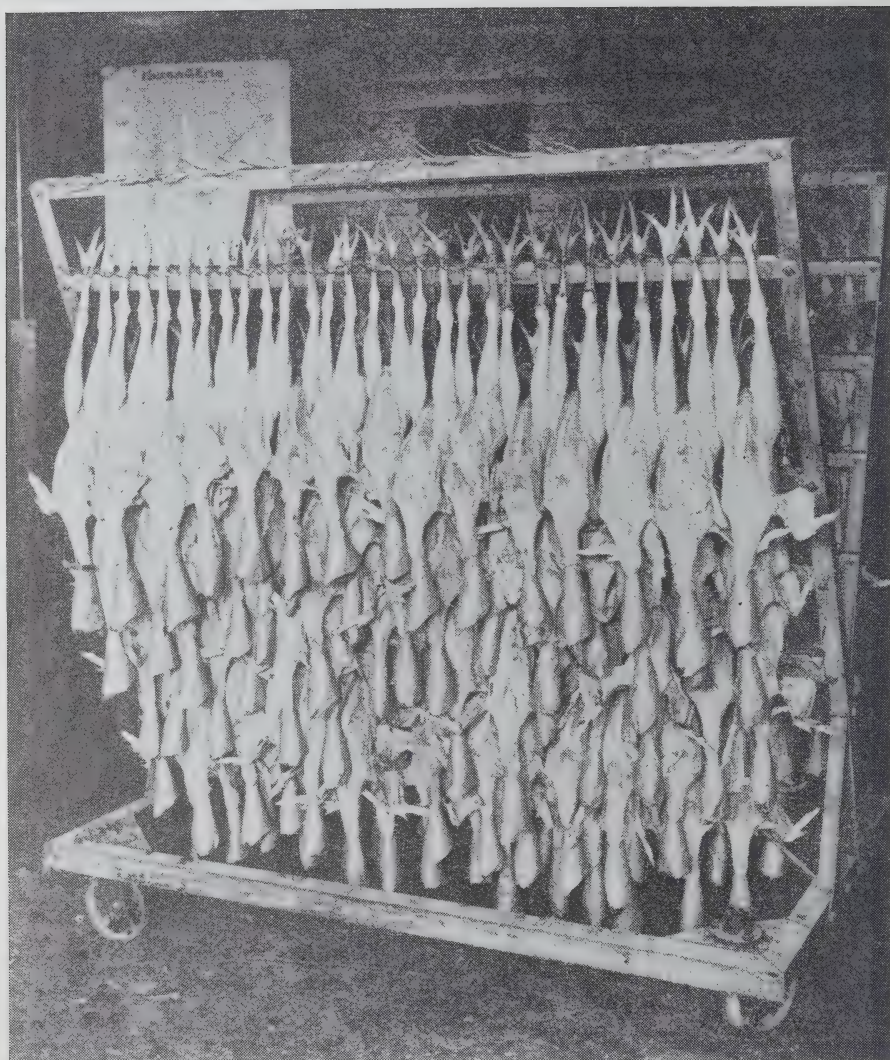
The ease with which feathers can be stripped off depends directly upon the accurate piercing of the brain and the nerve centre immediately behind the brain. This causes a reflex action in the muscles of the skin cells holding the feathers, with the result that when properly done the feathers almost literally drop out. After the bird is picked clean, and before it is hung on the cooling rack, care should be taken to see that the lower bowel is freed from excrement. This is done by pressing the abdomen, from a point three or four inches from the tail, sharply inwards and towards the vent.

PRE-COOLING IMPORTANT

When the bird has been plucked it should be hung on a cooling rack similar to the one shown in the accompanying illustration. Any farmer handy with tools can make a practical substitute for his own needs.

Pre-cooling is a most important factor in preparing dressed poultry for market. After poultry is dressed it should be held in a convenient shed or room at a temperature close to 40 degrees F. for at least twenty-four hours and preferably forty-eight hours.

POULTRY SHOULD NOT BE LEFT IN A FREEZING TEMPERATURE.—All the body heat should be out of the bird before packing or sending to market. Every care should be taken to keep poultry from freezing before it is delivered to the wholesale buyer.



A commercial cooling rack.

“GOVERNMENT GRADES”

The government grades now recognized as the standard for trading in dressed poultry throughout Canada, as set out in the “Canadian Standards for Dressed Poultry” under federal regulation, are as follows:—

<i>Class</i>	<i>Grade</i>
Milkfed.....	Milkfed Special. Milkfed “A.” Milkfed “B.”
Selected.....	Selected Special. Selected “A.” Selected “B.” Selected “C.” Selected “D.”

CLASSES DEFINED

The two classes of Dressed Poultry recognized under the “Canadian Standards for Dressed Poultry” are defined by regulation as follows:—

Milkfed—All poultry to qualify for the class Milkfed must show a white colour in the deposits of fat. The skin and flesh must be soft in texture showing evidence of the birds having been cratefatted or penfatted for a sufficient length of time to soften or kill out the muscles.

Selected—This class shall include all poultry that does not show white colour in the deposits of fat and in which the skin and fleshing does not show evidence of milkfeeding.

GRADES DEFINED

The several grades which are recognized in the respective classes “Milkfed” and “Selected” are defined by regulation in the following terms:—

Special—Birds in this class are commercially perfect specimens as to conformation, finish, plumpness and fine soft quality of fleshing. The back, hips and pin bones must be well covered with fat. No bruises, breaks nor tears in the skin or flesh are allowed, and no pin feathers that detract from the appearance of the bird. In no case shall pin feathers appear on the breast or the thighs. There must not be any evidence of discolouration from improper bleeding or from rubbing in plucking.

Milkfed Special—Milkfed Special birds must comply with the description of Special and must, in addition, conform to the requirements of Milkfed.

“A” *Grade*—Birds in this class must be well fattened and fleshed, having backs, hips and pin bones covered with fat. They may show some pin feathers other than on the breast. No deformities of any kind in conformation are allowable. There must not be any evidence of discolouration from improper bleeding or from rubbing in plucking. Tears in the skins are not to exceed half an inch in length and there shall be no more than two tears on any one specimen, none of which shall appear on the breast.

Milkfed “A”—Milkfed “A” birds must comply with the definition of “A” Grade and must, in addition, conform to the requirements of Milkfed.

"B" Grade—Birds in this class must be reasonably well fleshed. They may show slight traces of pin feathers on the breast. No deformities are allowable except slightly crooked breast bones. They may show one large tear not exceeding one inch in length or not more than five small tears or slight traces of rubbing.

Milkfed "B"—Milkfed "B" birds must comply with the definition of "B" and must, in addition, conform to the requirements of Milkfed.

"C" Grade—Birds in this class must be fairly well fleshed. They may be pin feathery, and they may be poorly dressed, torn or bruised. This grade may contain: Birds with deformed breast bones, well fleshed birds improperly bled but which are not badly discoloured from improper bleeding, well fleshed birds with pack and pin bones not covered with fat and large, rangy birds that are not properly fleshed.

"D" Grade—Very poorly fleshed birds and all other birds below "C" Grade that are fit for human food.



Grading dressed poultry. Scene in a commercial shipping room showing how culling, weighing and packing is done.

